

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
13 January 2005 (13.01.2005)

PCT

(10) International Publication Number
WO 2005/004359 A1

(51) International Patent Classification⁷: **H04B 10/17**

211-8588 (JP). WATANABE, Shigeki [JP/JP]; c/o FUJITSU LIMITED, 1-1, Kamikodanaka 4-chome, Nakahara-ku, Kawasaki-shi, Kanagawa 211-8588 (JP).

(21) International Application Number:
PCT/JP2003/008316

(22) International Filing Date: 30 June 2003 (30.06.2003)

(74) Agent: OSUGA, Yoshiyuki; 3rd Fl., Nibancho Bldg., 8-20, Nibancho, Chiyoda-ku, Tokyo 102-0084 (JP).

(25) Filing Language: English

(81) Designated States (*national*): JP, US.

(26) Publication Language: English

(84) Designated States (*regional*): European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR).

(71) Applicant (*for all designated States except US*): FUJITSU LIMITED [JP/JP]; 1-1, Kamikodanaka 4-chome, Nakahara-ku, Kawasaki-shi, Kanagawa 211-8588 (JP).

Published:

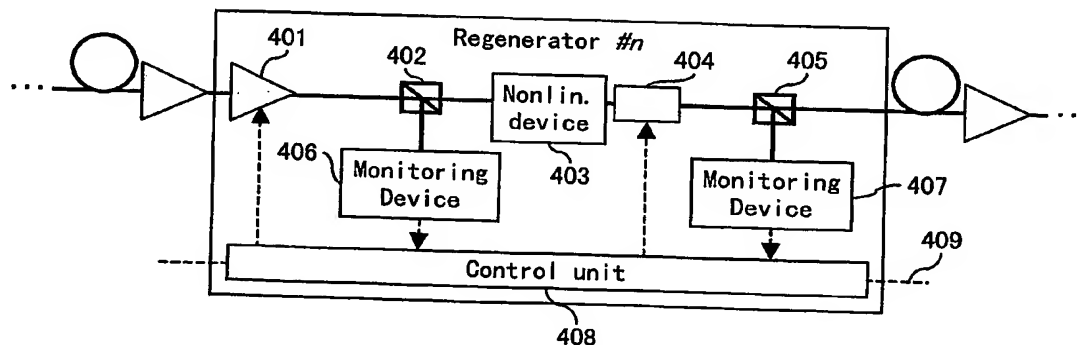
— with international search report

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): HAINBERGER, Rainer [AT/JP]; c/o FUJITSU LIMITED, 1-1, Kamikodanaka 4-chome, Nakahara-ku, Kawasaki-shi, Kanagawa

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: OPTICAL REGENERATOR IN OPTICAL FIBER COMMUNICATION SYSTEM



(57) Abstract: In an optical fiber communication system, the input power to an all-optical nonlinear device in an optical regenerator is monitored and adjusted such that the regenerator operates at an optimized operation point.